



Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete If Known	
				Application Number	10/550,518
Sheet 1 of 5				Filing Date	§ 371 Date: September 26, 2005
				First Named Inventor	BACHMANN, Martin F.
				Art Unit	1633
				Examiner Name	LI, Qian Janice
				Attorney Docket Number	1700.0630000/BJD/WBC

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If Known)			
	AG3	US- 5,057,540	10/15/1991	Kensil <i>et al.</i>	
	AH3	US- 5,071,651	12/10/1991	Sabara <i>et al.</i>	
	AI3	US- 5,374,426	12/20/1994	Sabara <i>et al.</i>	
	AJ3	US- 5,962,636	10/05/1999	Bachmaier <i>et al.</i>	
	AK3	US- 5,989,868	11/23/1999	Harrison <i>et al.</i>	
	AA4	US- 6,949,520 B1	09/27/2005	Hartmann <i>et al.</i>	
	AB4	US- 2001/0044416 A1	11/22/2001	McCluskie <i>et al.</i>	
	AC4	US- 2003/0050268 A1	03/13/2003	Krieg <i>et al.</i>	
	AD4	US- 2003/0050263 A1	03/13/2003	Krieg <i>et al.</i>	
	AE4	US- 2003/0060440 A1	03/27/2003	Klinman <i>et al.</i>	
	AF4	US- 2003/0087848 A1	05/08/2003	Bratzler <i>et al.</i>	
	AG4	US- 2003/0099668 A1	05/29/2003	Bachmann <i>et al.</i>	
	AH4	US- 2004/0005338 A1	01/08/2004	Bachmann <i>et al.</i>	
	AI4	US- 2005/0101557 A1	05/12/2005	Krieg <i>et al.</i>	
	AJ4	US- 2005/0169888 A1	08/04/2005	Hartmann <i>et al.</i>	
	AK4	US- 2006/0286070 A1	12/21/2006	Hartmann <i>et al.</i>	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† ⁶
		Country Code ⁴ Kind Code ⁵ (if known)				
	AP9	EP 0 468 520 A2	01/29/1992	Tokunaga <i>et al.</i>		
	AL10	WO 94/02499 A1	02/03/1994	Padmapriya <i>et al.</i>		
	AM10	WO 95/26204 A1	10/05/1995	Hutcherson <i>et al.</i>		
	AN10	WO 96/02555 A1	02/01/1996	Krieg		
	AO10	EP 0 772 619 B1	05/14/1997	Krieg <i>et al.</i>		
	AP10	WO 97/28259 A1	08/07/1997	Carson <i>et al.</i>		

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

1700.0630000/BJD/WBC

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete If Known

Complete if Known	
Application Number	10/550,518
Filing Date	§ 371 Date: September 26, 2005
First Named Inventor	BACHMANN, Martin F.
Art Unit	1633
Examiner Name	LI, Qian Janice
Attorney Docket Number	1700.0630000/BJD/WBC

Sheet

3

of

of	5
----	---

5

Attorney Docket Number

1700.0630000/BJD/WBC

[illegible]

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ⁴ Kind Code ⁵ (in known)				
	AM12	WO 99/11275 A2	03/11/1999	Ray		
	AN12	WO 99/29723 A1	06/17/1999	Hall		
	AO12	WO 99/51259 A2	10/14/1999	Krieg <i>et al.</i>		
	AP12	WO 00/00462 A1	01/06/2000	Bauer <i>et al.</i>		Abs.
	AL13	WO 00/06588 A1	02/10/2000	Krieg		
	AM13	WO 00/14217 A2	03/16/2000	Wagner <i>et al.</i>		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Transaction is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO				<i>Complete If Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	10/550,518
				Filing Date	§ 371 Date: September 26, 2005
				First Named Inventor	BACHMANN, Martin F.
				Art Unit	1633
				Examiner Name	LI, Qian Janice
				Attorney Docket Number	1700.0630000/BJD/WBC
Sheet	4	of	5		

[illegible]

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ⁴ Kind Code ⁵ (in known)				
	AN13	WO 00/23955 A1	04/27/2000	Schiller <i>et al.</i>		
	AO13	WO 02/10416 A1	02/07/2002	Gowans <i>et al.</i>		
	AP13	WO 03/030656 A2	04/17/2003	Babiuk <i>et al.</i>		
	AL14	WO 03/040308 A2	05/15/2003	Klinman <i>et al.</i>		
	AM14	WO 03/045431 A2	06/05/2003	Vicari <i>et al.</i>		
	AN14	WO 2004/009124 A2	01/29/2004	Bachmann <i>et al.</i>		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

here if English language Transaction is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Application Number	10/550,518
Filing Date	§ 371 Date: September 26, 2005
First Named Inventor	BACHMANN, Martin F.
Art Unit	1633
Examiner Name	LI, Qian Janice
Attorney Docket Number	1700.0630000/BID/WRC

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete If Known	
				Application Number	10/550,518
				Filing Date	§ 371 Date: September 26, 2005
				First Named Inventor	BACHMANN, Martin F.
				Art Unit	1633
				Examiner Name	LI, Qian Janice
Sheet	1	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL103	Allison (1994) Int J Technol Assess Health Care 10(1):107-20 -- Adjuvants and immune enhancement. Cambridge University Press	
	NPL104	Ballas, <i>et al.</i> (1996) J Immunol 157(5):1840-5 -- Induction of NK activity in murine and human cells by CpG motifs in oligodeoxynucleotides and bacterial DNA. The American Association of Immunologists	
	NPL105	Bartholomé, <i>et al.</i> (1999) J Interferon Cytokine Res 19(5):471-8 -- IFN- β interferes with the differentiation of dendritic cells from peripheral blood mononuclear cells: selective inhibition of CD40-dependent interleukin-12 secretion. Mary Ann Liebert, Inc.	
	NPL106	Beaucage, <i>et al.</i> (1981) Tet Lett 22(20):1859-62 -- Deoxynucleoside Phosphoramidites-A New Class of Key Intermediates for Deoxypolynucleotide Synthesis. Pergamon Press Ltd.	
	NPL107	Blackwell, <i>et al.</i> (April 2003) J Immunol 170(8):4061-8 -- CpG-A-induced monocyte IFN- γ -inducible protein-10 production is regulated by plasmacytoid dendritic cell-derived IFN- α . The American Association of Immunologists, Inc.	
	NPL108	Bousquet, <i>et al.</i> (1998) J Allergy Clin Immunol 102(4 Pt 1):558-62 -- Allergen immunotherapy: Therapeutic vaccines for allergic diseases. Mosby, Inc.	
	NPL109	Branda, <i>et al.</i> (1996) J Lab Clin Med 128(3):329-38 -- Amplification of antibody production by phosphorothioate oligodeoxynucleotides. Mosby-Year Book, Inc.	
	NPL110	Cella, <i>et al.</i> (1999) Nat Med 5(8):919-23 -- Plasmacytoid monocytes migrate to inflamed lymph nodes and produce large amounts of type I interferon. Nature America Inc.	
	NPL111	Cella, <i>et al.</i> (1999) J Exp Med 189(5):821-9 -- Maturation, activation, and protection of dendritic cells induced by double-stranded RNA. The Rockefeller University Press	
	NPL112	Choi, <i>et al.</i> (2000) Virology 275(2):249-57 -- Packaging of tobacco mosaic virus subgenomic RNAs by Brome mosaic virus coat protein exhibits RNA controlled polymorphism. Academic Press	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete If Known		
			Application Number	10/550,518	
			Filing Date	§ 371 Date: September 26, 2005	
			First Named Inventor	BACHMANN, Martin F.	
			Art Unit	1633	
			Examiner Name	LI, Qian Janice	
Sheet	2	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL113	Choi, <i>et al.</i> (January 2002) Proc Natl Acad Sci U S A 99(2):655-60 -- tRNA elements mediate the assembly of an icosahedral RNA virus. National Academy of Sciences	
	NPL114	Clark, <i>et al.</i> (2001) J Gen Virol 82(Pt 11):2791-7 -- Immunity against both polyomavirus VP1 and a transgene product induced following intranasal delivery of VP1 pseudocapsid-DNA complexes. Society for General Microbiology	
	NPL115	Cooper, <i>et al.</i> (August 2004) Vaccine 22(23-24):3136-43 -- Safety and immunogenicity of CPG 7909 injection as an adjuvant to Fluarix influenza vaccine. Elsevier Ltd.	
	NPL116	Dalpk, <i>et al.</i> (February 2002) Immunology 106(1):102-12 -- Phosphodiester CpG oligonucleotides as adjuvants: polyguanosine runs enhance cellular uptake and improve immunostimulative activity of phosphodiester CpG oligonucleotides <i>in vitro</i> and <i>in vivo</i> . Blackwell Science Ltd.	
	NPL117	Gavett, <i>et al.</i> (1995) J Exp Med 182(5):1527-36 -- Interleukin 12 inhibits antigen-induced airway hyperresponsiveness, inflammation, and Th2 cytokine expression in mice. The Rockefeller University Press	
	NPL118	Goeckeritz, <i>et al.</i> (1999) Int Immunol 11(10):1693-700 -- Multivalent cross-linking of membrane Ig sensitizes murine B cells to a broader spectrum of CpG-containing oligodeoxynucleotide motifs, including their methylated counterparts, for stimulation of proliferation and Ig secretion. Oxford University Press	
	NPL119	Gursel, <i>et al.</i> (2001) J Immunol 167(6):3324-8 -- Sterically stabilized cationic liposomes improve the uptake and immunostimulatory activity of CpG oligonucleotides. The American Association of Immunologists	
	NPL120	Häcker, <i>et al.</i> (1998) EMBO J 17(21):6230-40 -- CpG-DNA-specific activation of antigen-presenting cells requires stress kinase activity and is preceded by non-specific endocytosis and endosomal maturation. Oxford University Press	
	NPL121	Halperin, <i>et al.</i> (June 2003) Vaccine 21(19-20):2461-7 -- A phase I study of the safety and immunogenicity of recombinant hepatitis B surface antigen co-administered with an immunostimulatory phosphorothioate oligonucleotide adjuvant. Elsevier Science Ltd.	
	NPL122	Halpern, <i>et al.</i> (1996) Cell Immunol 167(1):72-8 -- Bacterial DNA induces murine interferon-γ production by stimulation of interleukin-12 and tumor necrosis factor-α. Academic Press, Inc.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete If Known		
			Application Number	10/550,518	
			Filing Date	§ 371 Date: September 26, 2005	
			First Named Inventor	BACHMANN, Martin F.	
			Art Unit	1633	
			Examiner Name	LI, Qian Janice	
Sheet	3	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL123	Hartmann, <i>et al.</i> (2000) J Immunol 164(2):944-52 -- Mechanism and function of a newly identified CpG DNA motif in human primary B cells. The American Association of Immunologists	
	NPL124	Hartmann, <i>et al.</i> (1999) Proc Natl Acad Sci U S A 96(16):9305-10 -- CpG DNA: a potent signal for growth, activation, and maturation of human dendritic cells. National Academy of Sciences	
	NPL125	Heal, <i>et al.</i> (2000) Vaccine 18:251-8 -- Expression and immunogenicity of a liver stage malaria epitope presented as a foreign peptide on the surface of RNA-free MS2 bacteriophage capsids. Elsevier Science Ltd.	
	NPL126	Heath (1994) Cancer Biother 9(1):1-6 -- Cytokines and the rational choice of immunological adjuvants. Mary Ann Liebert, Inc.	
	NPL127	Hsu, <i>et al.</i> (1996) Nat Med 2(5):540-4 -- Immunoprophylaxis of allergen-induced immunoglobulin E synthesis and airway hyperresponsiveness <i>in vivo</i> by genetic immunization. Nature Publishing Group	
	NPL128	Iho, <i>et al.</i> (1999) J Immunol 163(7):3642-52 -- Oligodeoxynucleotides containing palindrome sequences with internal 5'-CpG-3' act directly on human NK and activated T cells to induce IFN- γ production <i>in vitro</i> . The American Association of Immunologists	
	NPL129	Jiang, <i>et al.</i> (1999) Vaccine 17(7-8):1005-13 -- Heterotypic protection from rotavirus infection in mice vaccinated with virus-like particles. Elsevier Science Ltd.	
	NPL130	Jiang, <i>et al.</i> (1999) Hum Gene Ther 10(16):2627-36 -- A genetically engineered spleen necrosis virus-derived retroviral vector that displays the HIV type 1 glycoprotein 120 envelope peptide. Mary Ann Liebert, Inc.	
	NPL131	Joelson, <i>et al.</i> (1997) J Gen Virol 78:1213-7 -- Presentation of a foreign peptide on the surface of tomato bushy stunt virus. Society for General Microbiology	
	NPL132	Kerkmann, <i>et al.</i> (May 2003) J Immunol 170(9):4465-74 -- Activation with CpG-A and CpG-B oligonucleotides reveals two distinct regulatory pathways of type I IFN synthesis in human plasmacytoid dendritic cells. The American Association of Immunologists, Inc.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete If Known		
			Application Number	10/550,518	
			Filing Date	§ 371 Date: September 26, 2005	
			First Named Inventor	BACHMANN, Martin F.	
			Art Unit	1633	
			Examiner Name	LI, Qian Janice	
Sheet	4	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL133	Kline, <i>et al.</i> (1998) J Immunol 160(6):2555-9 -- Cutting Edge: Modulation of airway inflammation by CpG oligodeoxynucleotides in a murine model of asthma. The American Association of Immunologists	
	NPL134	Kline, <i>et al.</i> (February 2002) Am J Physiol Lung Cell Mol Physiol 283(1):L170-9 -- Treatment of established asthma in a murine model using CpG oligodeoxynucleotides. The American Physiological Society	
	NPL135	Klinman (April 2004) Nat Rev Immunol 4(4):249-58 -- Immunotherapeutic uses of CpG oligodeoxynucleotides. Nature Publishing Group	
	NPL136	Klinman, <i>et al.</i> (1996) Proc Natl Acad Sci U S A 93(7):2879-83 -- CpG motifs present in bacterial DNA rapidly induce lymphocytes to secrete interleukin 6, interleukin 12, and interferon γ . National Academy of Sciences	
	NPL137	Klinman, <i>et al.</i> (July 2004) Vaccine 22(21-22):2881-6 -- CpG oligonucleotides improve the protective immune response induced by the anthrax vaccination of rhesus macaques. Elsevier Ltd.	
	NPL138	Krieg (1999) Biochim Biophys Acta 1489(1):107-16 -- Mechanisms and applications of immune stimulatory CpG oligodeoxynucleotides. Elsevier Science B.V.	
	NPL139	Krieg (October 2002) Annu Rev Immunol 20:709-60 -- CpG motifs in bacterial DNA and their immune effects. Annual Reviews	
	NPL140	Krieg, <i>et al.</i> (2001) Curr Opin Mol Ther 3(1):15-24 -- Enhancing vaccines with immune stimulatory CpG DNA. PharmaPress Ltd.	
	NPL141	Krieg, <i>et al.</i> (1995) Nature 374(6522):546-9 -- CpG motifs in bacterial DNA trigger direct B-cell activation. Nature Publishing Group	
	NPL142	Krieg, <i>et al.</i> (1996) Antisense Nucleic Acid Drug Dev 6(2):133-9 -- Oligodeoxynucleotide modifications determine the magnitude of B cell stimulation by CpG motifs. Mary Ann Liebert, Inc.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete If Known		
			Application Number	10/550,518	
			Filing Date	§ 371 Date: September 26, 2005	
			First Named Inventor	BACHMANN, Martin F.	
			Art Unit	1633	
			Examiner Name	LI, Qian Janice	
Sheet	5	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL143	Krug, <i>et al.</i> (April 2003) J Immunol 170(7):3468-77 -- CpG-A oligonucleotides induce a monocyte-derived dendritic cell-like phenotype that preferentially activates CD8 T cells. The American Association of Immunologists, Inc.	
	NPL144	Lechner, <i>et al.</i> (January 2002) Intervirology 45(4-6):212-7 -- Virus-like particles as a modular system for novel vaccines. S. Karger AG, Basel	
	NPL145	Lee, <i>et al.</i> (2000) J Immunol 165(7):3631-9 -- Effects of a hexameric deoxyriboguanosine run conjugation into CpG oligodeoxynucleotides on their immunostimulatory potentials. The American Association of Immunologists	
	NPL146	Leibl, <i>et al.</i> (1998) Vaccine 16(4):340-5 -- Adjuvant/carrier activity of inactivated tick-borne encephalitis virus. Elsevier Science Ltd.	
	NPL147	Liljas, <i>et al.</i> (1994) J Mol Biol 244(3):279-90 -- Crystal structure of bacteriophage fr capsids at 3.5 Å resolution. Academic Press Limited	
	NPL148	Liu, <i>et al.</i> (1998) Blood 92(10):3730-6 -- Immunostimulatory CpG oligodeoxynucleotides enhance the immune response to vaccine strategies involving granulocyte-macrophage colony-stimulating factor. The American Society of Hematology	
	NPL149	Luo, <i>et al.</i> (1998) Virology 240(2):316-25 -- Induction of V3-specific cytotoxic T lymphocyte responses by HIV gag particles carrying multiple immunodominant V3 epitopes of gp120. Academic Press	
	NPL150	Mahon (2001) Curr Med Chem 8(9):1057-75 -- The rational design of vaccine adjuvants for mucosal and neonatal immunization. Bentham Science Publishers Ltd.	
	NPL151	Notka, <i>et al.</i> (2000) Vaccine 18(3-4):291-301 -- Accelerated clearance of SHIV in rhesus monkeys by virus-like particle vaccines is dependent on induction of neutralizing antibodies. Elsevier Science Ltd.	
	NPL152	Oxenius, <i>et al.</i> (1999) J Virol 73(5):4120-6 -- CpG-containing oligonucleotides are efficient adjuvants for induction of protective antiviral immune responses with T-cell peptide vaccines. American Society for Microbiology	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete If Known		
			Application Number	10/550,518	
			Filing Date	§ 371 Date: September 26, 2005	
			First Named Inventor	BACHMANN, Martin F.	
			Art Unit	1633	
			Examiner Name	LI, Qian Janice	
Sheet	6	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL153	Pestka (1986) Methods Enzymol 119:14-23 -- Interferon standards and general abbreviations. Academic Press, Inc.	
	NPL154	Pisetsky, <i>et al.</i> (1994) Life Sci 54(2):101-7 -- Stimulation of murine lymphocyte proliferation by a phosphorothioate oligonucleotide with antisense activity for herpes simplex virus. Pergamon Press Ltd.	
	NPL155	Pushko, <i>et al.</i> (1993) Protein Eng 6(8):883-91 -- Analysis of RNA phage <i>φ</i> coat protein assembly by insertion, deletion and substitution mutagenesis. Oxford University Press	
	NPL156	Raz (1997) Springer Semin Immunopathol 19(2):131-7 -- Introduction: gene vaccination, current concepts and future directions. Springer-Verlag	
	NPL157	Raz, <i>et al.</i> (1996) Proc Natl Acad Sci U S A 93(10):5141-5 -- Preferential induction of a Th ₁ immune response and inhibition of specific IgE antibody formation by plasmid DNA immunization. National Academy of Sciences	
	NPL158	Sato, <i>et al.</i> (1996) Science 273(5273):352-4 -- Immunostimulatory DNA sequences necessary for effective intradermal gene immunization. American Association for the Advancement of Science	
	NPL159	Schwarz, <i>et al.</i> (June 2003) Eur J Immunol 33(6):1465-70 -- Role of Toll-like receptors in costimulating cytotoxic T cell responses. WILEY-VCH Verlag GMBH & Co.	
	NPL160	Serre, <i>et al.</i> (1998) J Immunol 161(11):6059-67 -- Efficient presentation of multivalent antigens targeted to various cell surface molecules of dendritic cells and surface Ig of antigen-specific B cells. The American Association of Immunologists	
	NPL161	Siegal, <i>et al.</i> (1999) Science 284(5421):1835-7 -- The nature of the principal type 1 interferon-producing cells in human blood. American Association for the Advancement of Science	
	NPL162	Storni, <i>et al.</i> (February 2004) J Immunol 172(3):1777-85 -- Nonmethylated CG motifs packaged into virus-like particles induce protective cytotoxic T cell responses in the absence of systemic side effects. The American Association of Immunologists, Inc.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete If Known	
				Application Number	10/550,518
				Filing Date	§ 371 Date: September 26, 2005
				First Named Inventor	BACHMANN, Martin F.
				Art Unit	1633
				Examiner Name	LI, Qian Janice
Sheet	7	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL163	Takauji, <i>et al.</i> (November 2002) J Leukoc Biol 72(5):1011-9 -- CpG-DNA-induced IFN- α production involves p38 MAPK-dependent STAT1 phosphorylation in human plasmacytoid dendritic cell precursors. Wiley-Liss	
	NPL164	Tars, <i>et al.</i> (1997) J Mol Biol 271(5):759-73 -- The crystal structure of bacteriophage GA and a comparison of bacteriophages belonging to the major groups of <i>Escherichia coli</i> leviviruses. Academic Press Limited	
	NPL165	Uhlmann, <i>et al.</i> (March 2003) Curr Opin Drug Discov Devel 6(2):204-17 -- Recent advances in the development of immunostimulatory oligonucleotides. Current Drugs	
	NPL166	Van Ojik, <i>et al.</i> (October 2002) Ann. Oncol. 13:157-158 "Phase I/II study with CpG 7909 as adjuvant to vaccination with MAGE-3 protein in patients with MAGE-3 positive tumors," Oxford University Press, Abstract No. 5790	
	NPL167	Verthelyi, <i>et al.</i> (2001) J Immunol 166(4):2372-7 -- Human peripheral blood cells differentially recognize and respond to two distinct CpG motifs. The American Association of Immunologists	
	NPL168	Verthelyi, <i>et al.</i> (April 2004) AIDS 18(7):1003-8 -- CpG oligodeoxynucleotides improve the response to hepatitis B immunization in healthy and SIV-infected rhesus macaques. Lippincott Williams & Wilkins	
	NPL169	Vrtala, <i>et al.</i> (1998) J Immunol 160(12):6137-44 -- Immunization with purified natural and recombinant allergens induces mouse IgG1 antibodies that recognize similar epitopes as human IgE and inhibit the human IgE-allergen interaction and allergen-induced basophil degranulation. The American Association of Immunologists	
	NPL170	Warnes, <i>et al.</i> (1995) Gene 160(2):173-8 -- Expression of the measles virus nucleoprotein gene in <i>Escherichia coli</i> and assembly of nucleocapsid-like structures. Elsevier Science B.V.	
	NPL171	Weiner, G., (2000) "Declaration of Dr. George Weiner Under 37 CFR §1.32," submitted in support of US Application No. 09/286,098, 9 pages	
	NPL172	Weiner, <i>et al.</i> (1997) Proc Natl Acad Sci U S A 94(20):10833-7 -- Immunostimulatory oligodeoxynucleotides containing the CpG motif are effective as immune adjuvants in tumor antigen immunization. The National Academy of Sciences	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete If Known		
			Application Number	10/550,518	
			Filing Date	§ 371 Date: September 26, 2005	
			First Named Inventor	BACHMANN, Martin F.	
			Art Unit	1633	
			Examiner Name	LI, Qian Janice	
Sheet	8	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL173	Yamamoto, <i>et al.</i> (1992) J Immunol 148(12):4072-6 -- Unique palindromic sequences in synthetic oligonucleotides are required to induce IFN [correction of INF] and augment IFN-mediated [correction of INF] natural killer activity. The American Association of Immunologists	
	NPL174	Yamamoto, <i>et al.</i> (1994) Antisense Res Dev 4(2):119-22 -- Ability of oligonucleotides with certain palindromes to induce interferon production and augment natural killer cell activity is associated with their base length. Mary Ann Liebert, Inc.	
	NPL175	Yamamoto, <i>et al.</i> (1994) Jpn J Cancer Res 85(8):775-9 -- Synthetic oligonucleotides with certain palindromes stimulate interferon production of human peripheral blood lymphocytes <i>in vitro</i> . Japanese Cancer Association	
	NPL176	Yamamoto, <i>et al.</i> (2000) Springer Semin Immunopathol 22(1-2):11-9 -- The discovery of immunostimulatory DNA sequence. Springer-Verlag	
	NPL177	Yu, <i>et al.</i> (September 2002) Biochem Biophys Res Commun 297(1):83-90 -- Potent CpG oligonucleotides containing phosphodiester linkages: in vitro and in vivo immunostimulatory properties. Elsevier Science (USA)	
	NPL178	Zlotnick, <i>et al.</i> (2000) Virology 277(2):450-6 -- Mechanism of capsid assembly for an icosahedral plant virus. Academic Press	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M PEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.